

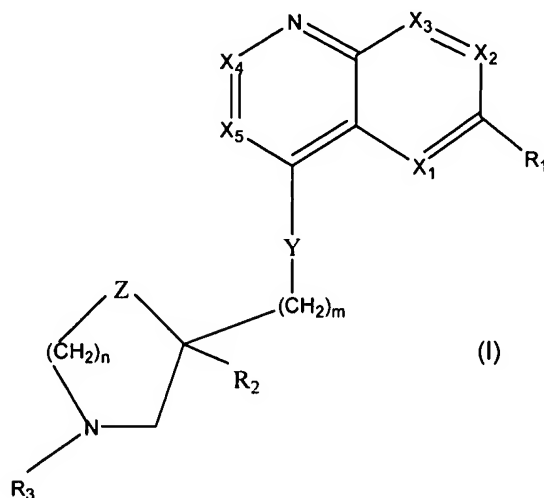
AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

What is claimed is:

1. (currently amended) A 4-substituted quinoline compound, of formula (I)



wherein

X₁, X₂, X₃, X₄ and X₅ are C-R'₁ to C-R'₅ respectively, or alternatively at most one of them is a nitrogen atom, wherein

R₁, R'₁, R'₂, R'₃, R'₄ and R'₅ are identical or different from one another and are selected from hydrogen or halogen ~~atom~~ atoms or an alkyl, cycloalkyl, phenyl, phenylthio, mono- or bicyclic heteroaryl or heteroarylthio, OH, SH, alkyloxy, difluoromethoxy, trifluoromethoxy, alkylthio, trifluoromethylthio, cycloalkyloxy, cycloalkylthio, acyl, acyloxy, acylthio, cyano, carboxyl, alkyloxycarbonyl, cycloalkyloxycarbonyl, nitro, -NRaRb or -CONRaRb radical; [[()]]wherein Ra and Rb are selected from hydrogen, alkyl, cycloalkyl, phenyl, mono- or bicyclic heteroaryl or Ra and Rb form together with

the nitrogen atom to which they are attached a 5- or 6-membered heterocycle which may optionally contain another heteroatom chosen from O, S and N and carrying, where appropriate, an alkyl, phenyl or mono- or bicyclic heteroaryl substituent on the nitrogen atom or, alternately ~~where appropriate~~, wherein the sulfur atom is oxidized to the sulfinyl or sulfonyl state[[]], or alternately represent a methylene radical substituted with fluoro, hydroxyl, alkyloxy, alkylthio, cycloalkyloxy, cycloalkylthio, phenyl, mono- or bicyclic heteroaryl, carboxyl, alkyloxycarbonyl, cycloalkyloxycarbonyl, -NRaRb or -CONRaRb wherein Ra and Rb are as defined above,

or represent phenoxy, heterocyclyloxy, benzyloxy, heterocyclylmethyloxy, or alternatively R₁ ~~may also represent~~ represents difluoromethoxy, or a radical having the structure $\text{--C}_p\text{F}_{2p+1}\text{--C}_m\text{F}_{2m+1}$, $\text{--SC}_p\text{F}_{2p+1}\text{--SC}_m\text{F}_{2m+1}$ or $\text{--OC}_p\text{F}_{2p+1}\text{--OC}_m\text{F}_{2m+1}$ wherein p [[m]] is an integer from 1 to 6 or alternatively R'₅ may also represent trifluoroacetyl,

m is equal to 1, 2 or 3;

n is equal to 0, 1 or 2;

Y is CHR, CO, CROH, CRNH₂, CRF or CF₂, wherein R is a hydrogen atom or an alkyl (C₁₋₆) radical;

Z is CH₂ or alternatively Z is oxygen ~~is oxygen~~, sulfur[[]], SO or SO₂ group and, ~~in this case wherein[[.]]~~ n is equal to 2;

R₂ is -CO₂R, -CH₂CO₂R, -CH₂-CH₂CO₂R, -CH₂OH or -CH₂-CH₂OH, wherein R is as defined above;

R₃ is phenyl, mono- or bicyclic heteroaryl, alk-R°₃ wherein alk is an alkylene radical and R°₃ is hydrogen, halogen, hydroxyl, alkyloxy, alkylthio, alkylsulfinyl, alkylsulfonyl, alkylamino, dialkylamino, cycloalkyl, cycloalkyloxy, cycloalkylthio, cycloalkylsulfinyl,

cycloalkylsulfonyl, cycloalkylamino, N-cycloalkyl-N-alkylamino, -N-(cycloalkyl)₂, acyl, cycloalkylcarbonyl, phenyl, phenoxy, phenylthio, phenylsulfinyl, phenylsulfonyl, phenylamino, N-alkyl-N-phenylamino, N-cycloalkyl-N-phenylamino, -N-(phenyl)₂, phenylalkyloxy, phenylalkylthio, phenylalkylsulfinyl, phenylalkylsulfonyl, phenylalkylamino, N-alkyl-N-phenylaminoalkyl, N-cycloalkyl-N-phenylalkylamino, benzoyl, mono- or bicyclic heteroaryl, heteroaryloxy, heteroarylthio, heteroarylsulfinyl, heteroarylsulfonyl, heteroarylamino, N-alkyl-N-heteroarylamino, N-cycloalkyl-N-heteroarylamino, heteroarylcarbonyl, heteroarylalkyloxy, heteroarylalkylthio, heteroarylalkylsulfinyl, heteroarylalkylsulfonyl, heteroarylalkylamino, N-alkyl-N-heteroarylaminoalkyl, N-cycloalkyl-N-heteroarylaminoalkyl, wherein ~~[[()]]~~ the heteroaryl is either ~~parts mentioned above being~~ mono- or bicyclic~~[[()]]~~, carboxyl, alkyloxycarbonyl, -NRaRb or -CO-NRaRb wherein Ra and Rb respectively represent hydrogen, alkyl, cycloalkyl, phenyl, mono- or bicyclic heteroaryl, or one of Ra or Rb represents hydroxyl, alkyloxy, cycloalkyloxy, or Ra and Rb form together with the nitrogen atom to which they are attached a 5- or 6-membered heterocycle which may optionally contain another heteroatom chosen from O, S and N and optionally carrying, ~~where appropriate,~~ an alkyl, phenyl or mono- or bicyclic heteroaryl substituent on the nitrogen atom or alternately ~~where appropriate in which~~ the sulfur atom is oxidized to the sulfinyl or sulfonyl state~~[[()]]~~, or alternatively R^o₃ represents -CR'^b=CR'^c-R'^a wherein R'^a is phenyl, phenylalkyl, heteroaryl or heteroarylalkyl wherein the heteroaryl part is mono- or bicyclic, phenoxyalkyl, phenylthioalkyl, phenylsulfinylalkyl, phenylsulfonylalkyl, phenylaminoalkyl, N-alkyl-N-phenylaminoalkyl, heteroaryloxyalkyl, heteroarylthioalkyl, heteroarylsulfinylalkyl, heteroarylsulfonylalkyl, heteroarylaminoalkyl, N-alkyl-N-

heteroarylaminoalkyl, heteroarylthio, heteroarylsulfinyl, heteroarylsulfonyl, wherein ~~[[()]]~~the heteroaryl parts are ~~mentioned above being~~ mono- or bicyclic~~[[()]]~~, phenylthio, phenylsulfinyl, phenylsulfonyl, and wherein R'b and R'c represent hydrogen, alkyl or cycloalkyl, or alternatively R₃ represents a radical -C≡C-Rd for which Rd is alkyl, phenyl, phenylalkyl, phenoxyalkyl, phenylthioalkyl, N-alkyl-N-phenylaminoalkyl, mono- or bicyclic heteroaryl, heteroarylalkyl, heteroaryloxyalkyl, heteroarylthioalkyl, heteroarylaminoalkyl, N-alkyl-N-heteroarylaminoalkyl, wherein ~~[[()]]~~the heteroaryl parts mentioned above being mono- or bicyclic~~[[()]]~~, or alternatively R^o₃ is a radical -CF₂-phenyl or mono- or bicyclic -CF₂-heteroaryl, wherein ~~it being understood that~~ the phenyl, benzyl, benzoyl or heteroaryl radicals or portions ~~mentioned above~~ are optionally substituted on the ring with 1 to 4 substituents chosen from halogen, hydroxyl, alkyl, alkyloxy, alkyloxyalkyl, haloalkyl, trifluoromethyl, trifluoromethoxy, trifluoromethylthio, carboxyl, alkyloxycarbonyl, cyano, alkylamino, -NRaRb for which Ra and Rb are as defined above, phenyl, hydroxyalkyl, alkylthioalkyl, alkylsulfinylalkyl, alkylsulfonylalkyl, wherein ~~it being understood that~~ the alkyl or acyl radicals and portions contain ~~(unless specifically stated)~~ 1 to 10 carbon atoms in the form of a straight or branched chain and ~~that~~ the cycloalkyl radicals contain 3 to 6 carbon atoms, wherein the compound is optionally ~~or~~ in its enantiomeric or diastereoisomeric forms, or mixtures of these forms, or ~~where appropriate~~ in a syn or an anti form or mixtures thereof, or its salts.

2. (currently amended) The compound of general formula (I), as defined in claim 1, wherein

X_1 , X_2 , X_3 , X_4 and X_5 are as defined in claim 1, wherein

R_1 , R'_1 , R'_2 , R'_3 , R'_4 and R'_5 , which are identical or different from one another, are selected from hydrogen, halogen, alkyl, alkyloxy, or a methylene substituted with alkyloxy:

Y represents a radical CH_2 , $CHOH$, CHF , $CHNH_2$ or $C=O$;

m is equal to 1;

n is as defined in claim 1;

Z is a CH_2 group or oxygen and in the latter case, n is equal to 2;

R_2 is as defined in claim 1, and

R_3 is $alk-R^{\circ}_3$ wherein alk is an alkylene radical and R°_3 is alkyloxy, alkylthio, alkylamino, dialkylamino, cycloalkyloxy, cycloalkylthio, cycloalkylamino, N-cycloalkyl-N-alkylamino, -N-(cycloalkyl)₂, phenoxy, phenylthio, phenylamino, N-alkyl-N-phenylamino, N-cycloalkyl-N-phenylamino, phenylalkyloxy, phenylalkylthio, phenylalkylamino, N-alkyl-N-phenylaminoalkyl, N-cycloalkyl-N-phenylalkylamino, heteroaryloxy, heteroarylthio, heteroarylamino, N-alkyl-N-heteroarylamino, N-cycloalkyl-N-heteroarylamino, heteroarylcarbonyl, heteroarylalkyloxy, heteroarylalkylthio, heteroarylalkylamino, N-alkyl-N-heteroarylaminoalkyl, N-cycloalkyl-N-heteroarylaminoalkyl, -NRaRb or -CO-NRaRb wherein Ra and Rb are as defined in claim 1, or alternatively R°_3 represents $-CR'b=CR'c-R'a$ for which R'a represents phenyl, phenylalkyl, heteroaryl or heteroarylalkyl, phenoxyalkyl, phenylthioalkyl, phenylaminoalkyl, N-alkyl-N-phenylaminoalkyl, heteroaryloxyalkyl, heteroarylthioalkyl,

heteroarylaminoalkyl, N-alkyl-N-heteroarylaminoalkyl, heteroarylthio, or phenylthio, and for which R'b and R'c is hydrogen, alkyl or cycloalkyl, or alternatively R°₃ is a radical -C≡C-Rd wherein Rd is alkyl, phenyl, phenylalkyl, phenoxyalkyl, phenylthioalkyl, N-alkyl-N-phenylaminoalkyl, mono- or bicyclic heteroaryl, heteroarylalkyl, heteroaryloxyalkyl, heteroarylthioalkyl, heteroarylaminoalkyl, N-alkyl-N-heteroarylaminoalkyl, or alternatively R°₃ is a radical -CF₂-phenyl or -CF₂-heteroaryl, wherein it being understood that the phenyl, benzyl, benzoyl or heteroaryl radicals or portions mentioned above are optionally substituted as set forth envisaged above in claim 1, wherein the compound is optionally in

~~or its enantiomeric or diastereoisomeric forms,~~ or mixtures of these forms, or optionally where appropriate in a syn or an anti form or mixtures thereof, or its salts.

3. (currently amended) The compound of general formula (I) as defined in claim 1, wherein

X₁, X₂, X₃, X₄ and X₅ are >C-R'₁ to >C-R'₅ respectively,

wherein R₁, R'₁, R'₂, R'₃, R'₄ and R'₅ are identical or different from one another and are selected from hydrogen, halogen, alkyl, alkyloxy, or a methylene substituted with alkyloxy;

Y is CH₂, CHOH, CHF, CHNH₂ or C=O;

m is equal to 1;

n is as defined in claim 1;

Z is a CH₂ group or oxygen and in the latter case, n is equal to 2;

R₂ is as defined in claim 1, and

R₃ is $[[\text{:}]]$ alk-R°₃, wherein alk is alkylene and R°₃ is cycloalkyloxy, cycloalkylthio, phenoxy, phenylthio, phenylalkyloxy, phenylalkylthio, heteroaryloxy, heteroarylthio, heteroarylalkyloxy, heteroarylalkylthio, or alternatively R₃ is -CR'b=CR'c-R'a for which R'a represents phenyl, phenylalkyl, phenylthioalkyl, heteroaryl or heteroarylalkyl, phenoxyalkyl, heteroaryloxyalkyl, heteroarylthioalkyl, heteroarylthio, or phenylthio, and wherein R'b and R'c is hydrogen, alkyl or cycloalkyl,

or alternatively R°₃ represents a radical -C≡C-Rd wherein Rd is alkyl, phenyl, phenylalkyl, phenoxyalkyl, phenylthioalkyl, N-alkyl-N-phenylaminoalkyl, mono- or bicyclic heteroaryl, heteroarylalkyl, heteroaryloxyalkyl, heteroarylthioalkyl, the heteroaryl parts mentioned above being mono- or bicyclic,

wherein ~~it being understood that~~ the phenyl, benzyl, benzoyl or heteroaryl radicals or portions ~~mentioned above~~ are optionally substituted as disclosed in claim 1, and the compound is optionally in ~~or its enantiomeric or diastereoisomeric forms,~~ or mixtures of these forms, or optionally ~~where appropriate in a syn or an anti form or mixtures thereof,~~ or its salts.

4. (currently amended) The compound of claim 1 which is selected from the group consisting ~~consisting of~~:

- 1-[(2E)-3-(2,5-difluorophenyl)-2-propenyl]-3-[3-(3-fluoro-6-methoxyquinolin-4-yl)propyl]-3-pyrrolidinecarboxylic acid;

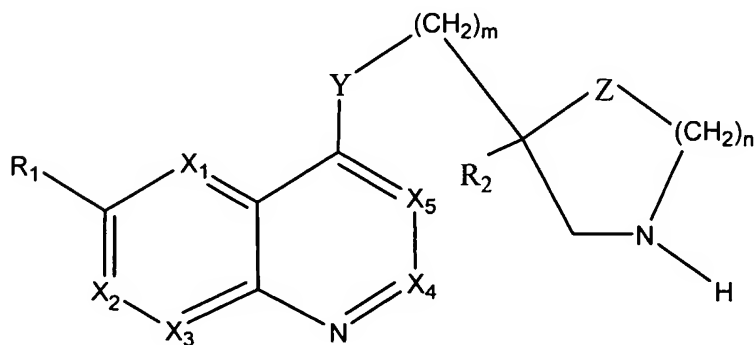
- 1-[(2E)-3-(2,5-difluorophenyl)-2-propenyl]-3-[3-hydroxy-(3-fluoro-6-methoxyquinolin-4-yl)propyl]-3-pyrrolidinecarboxylic acid;
- 1-[2-(2,5-difluorophenylsulfanyl)ethyl]-3-[3-(3-fluoro-6-methoxyquinolin-4-yl)propyl]-3-pyrrolidinecarboxylic acid;
- 1-[2-(2,5-difluorophenoxy)ethyl]-3-[3-(3-fluoro-6-methoxyquinolin-4-yl)propyl]-3-pyrrolidinecarboxylic acid;
- 1-[2-(thiophen-2-ylsulfanyl)ethyl]-3-[3-(3-fluoro-6-methoxyquinolin-4-yl)propyl]-3-pyrrolidinecarboxylic acid;
- 1-[(2E)-3-(2,5-difluorophenyl)-2-propenyl]-3-[3-(3-fluoro-6-methoxyquinolin-4-yl)propyl]azetidine-3-carboxylic acid;
- 1-[(2E)-3-(2,5-difluorophenyl)-2-propenyl]-3-[3-hydroxy-(3-fluoro-6-methoxyquinolin-4-yl)propyl]azetidine-3-carboxylic acid;
- 1-[(2E)-3-(2,5-difluorophenyl)-2-propenyl]-3-[3-(3-chloro-6-methoxyquinolin-4-yl)propyl]-3-pyrrolidinecarboxylic acid;
- 1-[(2E)-3-(2,5-difluorophenyl)-2-propenyl]-3-[3-hydroxy-(3-chloro-6-methoxyquinolin-4-yl)propyl]-3-pyrrolidinecarboxylic acid;
- 1-[2-(2,5-difluorophenylsulfanyl)ethyl]-3-[3-(3-chloro-6-methoxyquinolin-4-yl)propyl]-3-pyrrolidinecarboxylic acid;
- 1-[2-(2,5-difluorophenoxy)ethyl]-3-[3-(3-chloro-6-methoxyquinolin-4-yl)propyl]-3-pyrrolidinecarboxylic acid;
- 1-[2-(thiophen-2-ylsulfanyl)ethyl]-3-[3-(3-chloro-6-methoxyquinolin-4-yl)propyl]-3-pyrrolidinecarboxylic acid;

- 1-[(2E)-3-(2,5-difluorophenyl)-2-propenyl]-3-[3-(3-fluoro-6-methoxyquinolin-4-yl)-3-hydroxypropyl]-3-pyrrolidinecarboxylic acid;
- 3-[3-(3-chloro-6-methoxyquinolin-4-yl)]-3-hydroxypropyl]-1-[(2E)-3-2,5-difluorophenyl)-2-propenyl]-3-pyrrolidinecarboxylic acid;
- 1-[3-(2,5-difluorophenyl)propyl]-3-[3-(3-fluoro-6-methoxyquinolin-4-yl)-3-hydroxypropyl]-3-pyrrolidinecarboxylic acid, and
- 1-[2-[(2,5-difluorophenyl)thio]ethyl]-3-[3-(3-fluoro-6-methoxyquinolin-4-yl)-3-hydroxypropyl]-3-pyrrolidinecarboxylic acid;

wherein the compound is optionally in an ~~or its~~ enantiomeric or a diastereoisomeric form[[s]] or mixtures of these forms, or optionally ~~where appropriate~~ in a syn or an anti form or mixtures thereof, or its salts.

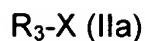
5. (original) A process for preparing a compound of formula (I) as defined in claim 1 comprising:

reacting a 4 substituted quinoline of the formula (II)



(II)

wherein X_1 , X_2 , X_3 , X_4 , X_5 , R_1 , R_2 , Y , Z , m and n are as defined in claim 1, wherein R_2 is protected when it carries a carboxyl radical, with a compound of formula (IIa)



wherein R_3 is as defined for formula (I) in claim 1 and X is halogen, a methylsulfonyl, trifluoromethylsulfonyl or p-toluenesulfonyl; removing the carboxyl protecting group, if necessary, to produce the compound of formula (I) as defined in claim 1; optionally separating the enantiomers or diastereomers of formula (I); optionally separating the syn and anti forms of formula (I); and optionally converting the compound of formula (1) into a pharmaceutically acceptable salt.

6. (original) The process according to claim 5 wherein R_3 is $-\text{alk}-R^{\circ}_3$, wherein alk is an alkyl radical, and R°_3 is $-\text{C}\equiv\text{C}-\text{Rd}$, wherein Rd is as defined in claim 1 comprising:

reacting a compound of formula (II) with an alkynyl compound of formula $\text{HC}\equiv\text{C}-\text{alk}-\text{X}$, wherein alk is as defined above and X is halogen to give a compound of formula (I) wherein R_3 is $\text{HC}=\text{C}-\text{alk}-$; and substituting the compound of formula (I) wherein R_3 is $\text{HC}\equiv\text{C}-\text{alk}-$, with an appropriate radical Rd, to give the compound of formula (I) wherein R_3 is $\text{Rd}-\text{C}\equiv\text{C}-\text{alk}-$.

7. (original) The process according to claim 5 wherein R_3 is $-\text{alk}-R^{\circ}_3$, wherein alk is an alkyl radical, and R°_3 is phenoxy, phenylthio, phenylamino, heteroaryloxy, heteroarylthio or heteroarylamino, comprising:

condensing a chain of formula HO-alk-X wherein X is halogen with a compound of formula (II) to produce a compound of formula (I) wherein R_3 is OH-alk- ;

optionally converting the compound of formula (I) wherein R_3 is OH-alk- to the compound of formula (I) wherein R_3 is methanesulfonyl-alk-, halogen-alk- or p-toluenesulfonyl-alk-; and

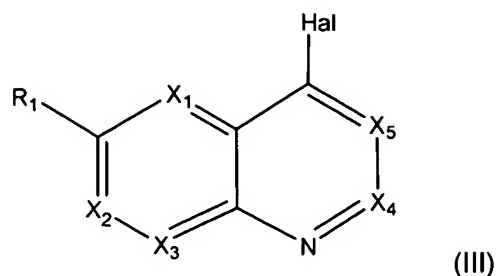
reacting the compound of the previous step with an aromatic compound having the formula $R^{\circ}_3\text{H}$ or $R^{\circ}_3\text{H}_2$ wherein said aromatic compound acts as basic reaction medium or optionally reacting directly said aromatic compound with a compound produced in the first condensing reaction under dehydration conditions.

8. (original) The process according to claim 5 for preparing compound of formula (I) wherein R_3 is hydroxymethyl or hydroxyethyl further comprising:

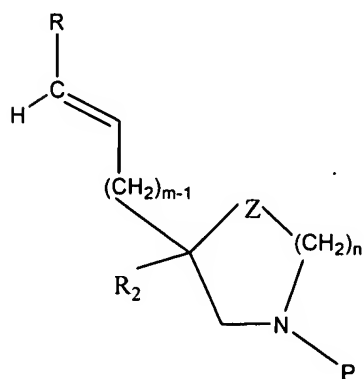
reducing a compound of formula (I) wherein R_2 is selected from the group consisting of either carboxyl, protected carboxyl, carboxymethyl and protected carboxymethyl.

9. (original) The process according to claim 5 for preparing the compound of formula (II), wherein Y is a group CHR comprising:

condensing a compound of formula (III)



wherein R_1 , X_1 , X_2 , X_3 , X_4 and X_5 are as defined in claim 1 and Hal is halogen,
with compound of formula (IV)

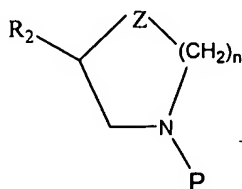


wherein P is a protecting group and R, Z, m, n and R_2 are as defined in claim 1
or R_2 represents a protected radical if R_2 represents or carries a carboxylic acid
functional group;
removing the protecting groups;
optionally converting the substituents of the aromatic bicycle of formula (II) thus
obtained, to give the expected compound substituted with R_1 , R'_1 , R'_2 , R'_3 , R'_4 ,
 R'_5 ; and

optionally removing any remaining protecting groups to give compound of formula (II) wherein R is CHR.

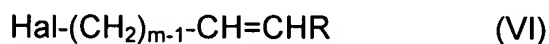
10. (original) The process according to claim 9 for preparing compound of formula (IV) wherein R, Z, P, R₂ and n are as defined in claim 9 and m is equal to 2 or 3 comprising:

reacting a compound of formula (V)



(V)

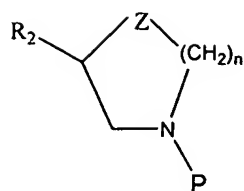
wherein Z and R₂ are as defined in claim 1 and P is a protecting group, with a compound of formula (VI)



wherein Hal is halogen and m and R are as defined in claim 1.

11. (currently amended) The process according to claim 9 for preparing a compound of formula (IV) wherein R, Z, P, R₂ and n are as defined in claim 9 and m is equal to 1, comprising:

reacting a compound of formula (V)



(V)

wherein Z and R₂ are as defined above and P is a protecting group, with a compound of formula (VI')



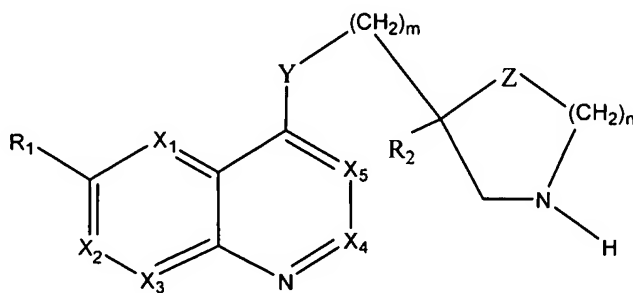
wherein R is as defined above; and

removing the hydrobromide from the product to obtain compound of formula (IV)

wherein R, Z, P, R₂ and n are as defined in claim 9 and m is equal to 1.

12. (currently amended)

A compound of formula (II)



(II)

wherein

X₁, X₂, X₃, X₄ and X₅ is C-R'₁ to C-R'₅ respectively, or alternatively at most one of them is a nitrogen atom, wherein

R₁, R'₁, R'₂, R'₃, R'₄ and R'₅ are identical or different from one another and represent a hydrogen or halogen atom or an alkyl, cycloalkyl, phenyl, phenylthio, mono- or bicyclic

heteroaryl or heteroarylthio, OH, SH, alkyloxy, difluoromethoxy, trifluoromethoxy, alkylthio, trifluoromethylthio, cycloalkyloxy, cycloalkylthio, acyl, acyloxy, acylthio, cyano, carboxyl, alkyloxycarbonyl, cycloalkyloxycarbonyl, nitro, -NRaRb or -CONRaRb radical (for which Ra and Rb can represent hydrogen, alkyl, cycloalkyl, phenyl, mono- or bicyclic heteroaryl or Ra and Rb form together with the nitrogen atom to which they are attached a 5- or 6-membered heterocycle which may optionally contain another heteroatom chosen from O, S and N and carrying, where appropriate, an alkyl, phenyl or mono- or bicyclic heteroaryl substituent on the nitrogen atom or, ~~where appropriate,~~ wherein the sulfur atom is oxidized to the sulfinyl or sulfonyl state, or methylene substituted with fluoro, hydroxyl, alkyloxy, alkylthio, cycloalkyloxy, cycloalkylthio, phenyl, mono- or bicyclic heteroaryl, carboxyl, alkyloxycarbonyl, cycloalkyloxycarbonyl, -NRaRb or -CONRaRb wherein Ra and Rb are as defined above,

or is phenoxy, heterocyclyloxy, benzyloxy, heterocyclylmethyloxy, or alternatively R₁ may also be difluoromethoxy, or a radical having the structure $\text{--C}_p\text{F}_{2p+1}\text{--C}_m\text{F}_{2m+1}$, $\text{--SC}_p\text{F}_{2p+1}\text{--SC}_m\text{F}_{2m+1}$ or $\text{--OC}_p\text{F}_{2p+1}\text{--OC}_m\text{F}_{2m+1}$ wherein p, m is an integer from 1 to 6 or alternatively R'₅ may also be trifluoroacetyl,

m is equal to 1, 2 or 3;

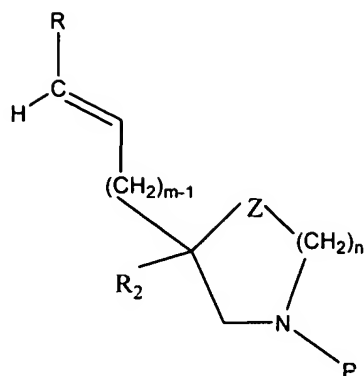
n is equal to 0, 1 or 2;

Y is CHR, CO, CROH, CRNH₂, CRF or CF₂, wherein R is hydrogen atom or alkyl (C₁₋₆);

Z is CH₂, oxygen, sulfur, SO, or SO₂ and, in this case, n is equal to 2; and

R₂ is -CO₂R, -CH₂CO₂R, -CH₂-CH₂CO₂R, -CH₂OH or -CH₂-CH₂OH, wherein R is as defined above.

13. (original) A compound of formula (IV)



(IV)

wherein

R is hydrogen or an alkyl (C₁₋₆);

m is equal to 1, 2 or 3;

n is equal to 0, 1 or 2;

Z is CH₂, oxygen, sulfur, SO or SO₂ and, in this case, n is equal to 2; and

R₂ is -CO₂R, -CH₂CO₂R, -CH₂-CH₂CO₂R, -CH₂OH, -CH₂-CH₂OH, or a protected carboxylic acid, wherein R is as defined above.

14. (original) A method for the treatment or prophylaxis of bacterial infections comprising administering to a patient in need of said treatment an effective amount of a compound according to claim 1 or a pharmacologically tolerable salt thereof.

15. (original) A pharmaceutical composition, or a pharmacologically tolerable salt thereof comprising a compound of claim 1, in the pure state or in combination with one or more compatible and pharmaceutically acceptable diluents or adjuvants.

16. (new) The compound of general formula (I), as defined in claim 1, wherein Y is selected to be CROH, wherein R is a hydrogen atom or an alkyl (C₁₋₆) radical.

17. (new) The compound of general formula (I), as defined in claim 1, wherein X₁, X₂, X₃, X₄ and X₅ are as defined in claim 1, R₁, R'₁, R'₂, R'₃, R'₄ and R'₅, which are identical or different, are selected from hydrogen, halogen, alkyl, alkyloxy, or a methylene substituted with alkyloxy:

Y represents a species selected from CH₂, CHF, CHNH₂, C=O, or CROH, wherein R is a hydrogen or an alkyl (C₁₋₆ radical);

m is equal to 2;

n is as defined in claim 1;

Z is a CH₂ group or oxygen and in the latter case, n is equal to 2;

R₂ is as defined in claim 1, and

R₃ is alk-R°₃ wherein alk is an alkylene radical and R°₃ is alkyloxy, alkylthio, alkylamino, dialkylamino, cycloalkyloxy, cycloalkylthio, cycloalkylamino, N-cycloalkyl-N-alkylamino, -N-(cycloalkyl)₂, phenoxy, phenylthio, phenylamino, N-alkyl-N-phenylamino, N-cycloalkyl-N-phenylamino, phenylalkyloxy, phenylalkylthio,

phenylalkylamino, N-alkyl-N-phenylaminoalkyl, N-cycloalkyl-N-phenylalkylamino,
 heteroaryloxy, heteroarylthio, heteroarylamino, N-alkyl-N-heteroarylamino,
 N-cycloalkyl-N-heteroarylamino, heteroarylcarbonyl, heteroarylalkyloxy,
 heteroarylalkylthio, heteroarylalkylamino, N-alkyl-N-heteroarylaminoalkyl, N-cycloalkyl-
 N-heteroarylaminoalkyl, -NRaRb or -CO-NRaRb wherein Ra and Rb are as defined in
 claim 1, or alternatively R°₃ represents -CR'b=CR'c-R'a for which R'a represents
 phenyl, phenylalkyl, heteroaryl or heteroarylalkyl, phenoxyalkyl, phenylthioalkyl,
 phenylaminoalkyl, N-alkyl-N-phenylaminoalkyl, heteroaryloxyalkyl, heteroarylthioalkyl,
 heteroarylaminoalkyl, N-alkyl-N-heteroarylaminoalkyl, heteroarylthio, or phenylthio,
 and for which R'b and R'c is hydrogen, alkyl or cycloalkyl, or alternatively R°₃ is a
 radical -C≡C-Rd wherein Rd is alkyl, phenyl, phenylalkyl, phenoxyalkyl,
 phenylthioalkyl, N-alkyl-N-phenylaminoalkyl, mono- or bicyclic heteroaryl,
 heteroarylalkyl, heteroaryloxyalkyl, heteroarylthioalkyl, heteroarylaminoalkyl, N-alkyl-N-
 heteroarylaminoalkyl, or alternatively R°₃ is a radical -CF₂-phenyl or -CF₂-heteroaryl,
 wherein the phenyl, benzyl, benzoyl or heteroaryl radicals or portions thereof are
 optionally substituted as set forth in claim 1, and wherein the compound includes
 enantiomeric or diastereoisomeric forms or mixtures of these forms, or alternately a
 syn or an anti form of the compound or mixtures thereof, or its salts.